

Appl. No. 10/615,635
Amdt. dated July 5, 2005
Reply to Office action of March 22, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A position location device comprising:
 - a waterproof housing;
 - a processor ~~contained~~enclosed within the waterproof housing;
 - a global positioning system receiver ~~contained~~enclosed within the waterproof housing and connected to the processor; and
 - a pressure transducer connected to the processor;wherein the global positioning system receiver includes an antenna enclosed within the waterproof housing;
and
wherein the pressure transducer is configured to measure depth under water;
wherein the processor is configured to obtain at least one measurement of position using the global positioning system when the position location device is above water;
wherein the processor is configured to obtain at least one measurement of depth using the pressure transducer when the location device is submerged;
wherein the processor is configured to record a profile of the dive including the measurements of position and depth.
2. (Cancelled)

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3. (Currently amended) The position location device of claim 1, further comprising:

clock circuitry connected to the processor and enclosed within the waterproof housing; and
memory connected to the processor and enclosed within the waterproof housing; and

at least one input/output device connected to the processor.

4. (Original) The position location device of claim 3, wherein one of the input/output devices is a microphone.

5. (Original) The position location device of claim 3, wherein one of the input/output device is a keypad including at least one button.

6. (Original) The position location device of claim 1, further comprising:

a flow meter connected to the processor; and
a compass connected to the processor.

7. (Previously Amended) The position location device of claim 6, wherein the flow meter is an impeller.

8. (Cancelled)

9. (Previously Amended) The position location device of claim 6, further comprising:

a second pressure transducer in communication with the processor; and

wherein the pressure transducer is configured to generate a signal indicative of air pressure within an air tank.

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10. (Original) The position location device of claim 1, further comprising a digital camera connected to the processor.

11. (Currently Amended) A position location device comprising:

means for measuring latitude and longitude;

means for measuring depth underwater;

means for measuring time; and

means for recording measurements of latitude, longitude, depth and time;

wherein the means for measuring latitude and longitude, the means for measuring time and the means for recording measurements are ~~contained~~enclosed within a waterproof housing.

12. (Original) The position location device of claim 11, further comprising means for annotating recorded measurements of latitude, longitude, depth or time.

13. (Original) The position location device of claim 11, further comprising means for identifying a particular measurement of latitude, longitude, depth or time as being associated with a particular point of interest.

14. (Original) The position location device of claim 11, wherein the time includes information concerning day, month and year.

15. (Original) The position location device of claim 11, further comprising:

means for measuring water speed; and

means for measuring bearing.

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16. (Currently Amended) The position location device of claim 11[[5]], further comprising means for measuring air time remaining.

17. - 23. (Cancelled)

24. (Currently Amended) A method of recording data, comprising:

performing a first measurement of latitude, longitude and time;

recording information indicative of the first measurement of latitude, longitude and time in a memory;

descending underwater;

measuring depth and time; ~~and~~

recording information indicative of the depth and time measurements in the memory;

resurfacing;

performing a second measurement of latitude, longitude and time;

recording information indicative of the second measurement of latitude, longitude and time in the memory;
and

constructing a dive profile using information including the latitude, longitude and time recordings obtained when the diver is at the surface and the depth and time measurements obtained when the diver is underwater.

25. (Cancelled)

26. (Cancelled)

27. (Previously Amended) The method of claim 25, further comprising identifying a particular measurement of latitude, longitude and time or measurement of depth and

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time as being associated with a particular point of interest.

28. (Previously Amended) The method of claim 27, further comprising recording descriptive information that is associated with the identified measurement of latitude, longitude and time or measurement of depth and time.

29. (Original) The method of claim 28, wherein recording descriptive information involves recording signals indicative of speech.

30. (Original) The method of claim 24, wherein the time includes information concerning day, month and year.

31. (Original) The method of claim 24, wherein:

the measurements of latitude, longitude and time are made using a global positioning system receiver adapted to be taken below the surface of the water; and

the measurements of depth are made using a pressure transducer.

32. (Original) The method of claim 24, further comprising periodically measuring water speed and bearing.

33. (Currently Amended) The method of claim 32, further comprising:

measuring average speed;

~~measure~~ measuring air time remaining; and

estimate range based on average speed and air time remaining calculations.

34. (Cancelled)

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35. (New) The position location device of claim 10, wherein the digital camera includes an electronic flash.

36. (New) The position location device of claim 1, wherein the processor is configured to create a dive log including the recorded dive profile.

37. (New) The position location device of claim 36, wherein the processor is configured to include audio recordings in the dive log.

38. (New) The position location device of claim 36, wherein the processor is configured to include digital photographs in the dive log.

39. (New) The position location device of claim 1, further comprising:

 a sensor connected to the processor;

 wherein the sensor and processor are configured to measuring speed through water.

40. (New) The method of claim 24, further comprising constructing a dive log including the dive profile.

41. (New) The method of claim 39, further comprising including audio recordings in the dive log.

42. (New) The method of claim 39, further comprising including at least one digital photograph in the dive log.